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| APPLICATION NO.                                 | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION N |
|---|-------------|-------------------------|---------------------|----------------|
| 09/918,437                                      | 08/01/2001  | Herfried Lammer         | 2418.0128-00        | 4755           |
| 7590 11/02/2004                                 |             |                         | EXAMINER            |                |
| Finnegan, Henderson, Farabow,                   |             |                         | CHIU, RALEIGH W     |                |
| Garrett & Dunner, L.L.P.<br>1300 I Street, N.W. |             |                         | ART UNIT            | PAPER NUMBER   |
| Washington, DC 20005-3315                       |             |                         | 3711                |                |
| -   |             | DATE MAILED: 11/02/2004 |                     |                |

Please find below and/or attached an Office communication concerning this application or proceeding.

| . •  |   |   |
|--|---|---|
|  | Application No.   | Applicant(s)  |
| Office Action Summany  | 09/918,437  | LAMMER, HERFRIED  |
| Office Action Summary  | Examiner  | Art Unit  |
| The MAIL INC DATE of this communic   | Raleigh Chiu  | 3711  |
| The MAILING DATE of this communic Period for Reply   | ation appears on the cover sheet w  | vitn the correspondence address   |
| A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNIC  - Extensions of time may be available under the provisions of after SIX (6) MONTHS from the mailing date of this communication of the period for reply specified above is less than thirty (30). If NO period for reply is specified above, the maximum statuse of the period for reply within the set or extended | ATION. 37 CFR 1.136(a). In no event, however, may a nication. days, a reply within the statutory minimum of thi tory period will apply and will expire SIX (6) MOIII, by statute, cause the application to become A | reply be timely filed  rty (30) days will be considered timely.  NTHS from the mailing date of this communication.  BANDONED (35 U.S.C. § 133). |
| Status   |   |   |
| <ul> <li>1) Responsive to communication(s) filed</li> <li>2a) This action is FINAL.</li> <li>3) Since this application is in condition for closed in accordance with the practice</li> </ul>   | n)⊠ This action is non-final.<br>or allowance except for formal mat   | •   |
| Disposition of Claims  |   |   |
| 4) ⊠ Claim(s) <u>1 and 3-14</u> is/are pending in 4a) Of the above claim(s) is/are 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1 and 3-14</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction   | withdrawn from consideration.   |   |
| Application Papers   |   |   |
| 9) The specification is objected to by the 10) The drawing(s) filed on is/are: a Applicant may not request that any objection Replacement drawing sheet(s) including the second sheet of the second sheet is objected to be second sheet.  | a) accepted or b) objected to on to the drawing(s) be held in abeya one correction is required if the drawing   | nce. See 37 CFR 1.85(a).<br>g(s) is objected to. See 37 CFR 1.121(d).   |
| Priority under 35 U.S.C. § 119   |   |   |
| 12) △ Acknowledgment is made of a claim for a) △ All b) ☐ Some * c) ☐ None of:  1. △ Certified copies of the priority do   | ocuments have been received. ocuments have been received in A f the priority documents have beer al Bureau (PCT Rule 17.2(a)).  | Application No n received in this National Stage  |
| Attachment(s)  |   |   |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTG 3) Information Disclosure Statement(s) (PTO-1449 or Paper No(s)/Mail Date   | O-948) Paper No   | Summary (PTO-413)<br>(s)/Mail Date<br>Informal Patent Application (PTO-152)   |

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## DETAILED ACTION

## Claim Rejections - 35 USC § 103

- 1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 2. Claims 1 and 3-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vandergrift in view of Lazarus and Hagood as previously applied.

Regarding claims 1 and 3-14, as set forth in the decision by the Board of Patent Appeals and Interferences, Vandergrift, Lazarus and Hagood make obvious the combination of two transducer elements laminated to a racket frame and a circuit located within a handle portion.

With regard to the amendments in claims 1, 6 and 11,

Lazarus discloses that flex circuits are old and well-known in

the art to be used in piezoelectric damping systems. See column

9, lines 42-47. Although Lazarus does not explicitly recite a

Y-shaped flex circuit, Figure 10 shows that the circuitry

required to connect actuators 110 within a racket would be

naturally Y-shaped.

Regarding the storage element within the circuit, Lazarus discloses the use of a shunt circuit in his piezoelectric system. See column 9, lines 25-27. Lazarus also discloses that

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the best such shunt within the piezoelectric system is a shunt resistor and the optimal shunt resistor has an inherent vibration frequency and capacitance. See column 9, lines 32-42. As such, the capacitance of the shunt resistor is considered to allow the circuit to inherently store power.

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## Conclusion

- 3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raleigh Chiu whose telephone number is (703) 308-2247. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich, can be reached on (703) 308-1513.

The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raleigh W. Chiu

Primary Examiner
Technology Center 3700

RWC:dei:feif
28 October 2004